

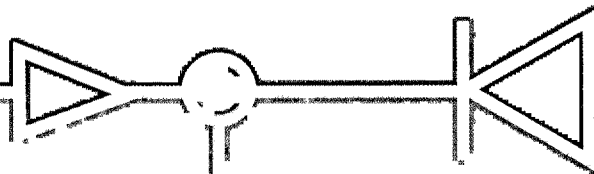
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SEVENTH EDITION



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REVISIONS
DICTIONARY
of
ELECTRONICS



RUDOLF F. GRAF



**MODERN
DICTIONARY
of
ELECTRONICS**

SEVENTH EDITION
REVISED AND UPDATED

Rudolf F. Graf




Boston Oxford Auckland Johannesburg Melbourne New Delhi

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character or set of characters. 3. Within a code set, a character intended to initiate, modify, or stop a control function.

control characteristic—1. A plot of the load current of a magnetic amplifier as a function of the control ampere turns for various loads and at the rated supply voltage and frequency. 2. The relationship between the critical grid voltage and the anode voltage of a tube.

control circuit—See control.

control circuits—In a digital computer, the circuits that carry out the instruction in proper sequence, interpret each instruction, and apply the proper commands to the arithmetic element and other circuits in accordance with the interpretation.

control-circuit transformer—A voltage transformer utilized to supply a voltage suitable for the operation of control devices.

control-circuit voltage—The voltage provided for the operation of shunt-coil magnetic devices.

control compartment—A space within the base, frame, or column of a machine used for mounting the control panel.

control counter—In a computer, a device that records the storage location of the instruction word to be operated on following the instruction word in current use.

control current—Current that occurs in the control circuit when control voltage is applied.

control data—In a computer, one or more items of data used to control the identification, selection, execution, or modification of another routine, record file, operation, data value, etc.

CONTROL DATA or Control Data—A trademark and service mark of Control Data Corporation in respect to data processing equipment and related services.

control electrode—An electrode on which a voltage is impressed to vary the current flowing between other electrodes.

control field—In a sequence of similar items of computer information, a constant location where control information is placed.

control-flow machine—A parallel-processing architecture with a single central sequence of instruction, carried out by many processors.

control grid—The electrode of a vacuum tube, other than a diode, upon which a signal voltage is impressed to regulate the plate current.

control-grid bias—The average direct-current voltage between the control grid and cathode of a vacuum tube.

control-grid plate transconductance—The ratio of the amplification factor of a vacuum tube to its plate resistance, combining the effect of both into one term.

controlled avalanche—A predictable, nondestructive avalanche characteristic designed into a semiconductor device as protection against reverse transients that exceed its ratings.

controlled-avalanche device—A semiconductor device that has very specific maximum and minimum avalanche-voltage characteristics and is also able to operate and absorb momentary power surges in this avalanche region indefinitely without damage.

controlled-avalanche silicon rectifier—A silicon diode manufactured with characteristics such that, when operating, it is not damaged by transient voltage peaks.

controlled-carrier modulation—Also called variable-carrier or floating-carrier modulation. A modulation system in which the carrier is amplitude modulated by the signal frequencies, and also in accordance with the

control characteristic — control section

envelope signal, so that the modulation factor remains constant regardless of the amplitude of the signal.

controlled-impedance cable—Package of two or more insulated conductors in which impedance measurements between respective conductors are kept essentially constant throughout the entire length.

controlled rectifier—1. A rectifier employing grid-controlled devices such as thyatrons or ignitrons to regulate its own output current. 2. Also called an SCR (silicon-controlled rectifier). A four-layer pnpn semiconductor that functions like a grid-controlled thyatron.

controller—1. An instrument that holds a process or condition at a desired level or status as determined by comparison of the actual value with the desired value. 2. A device or group of devices that serves to govern, in some predetermined manner, the electric power delivered to the apparatus to which it is connected. 3. A hardware interface that accepts instructions from a computer and reformats them to program an instrument or peripheral.

controller function—Regulation, acceleration, deceleration, starting, stopping, reversing, or protection of devices connected to an electric controller.

control-line timing—Clock signals between a modem and a communication-line controller unit.

control link—Apparatus for effecting remote control between a control point and a remotely controlled station.

control locus—A curve that shows the critical value of grid bias for a thyatron.

control operator—An amateur radio operator designated by the licensee of an amateur radio station to also be responsible for the emissions from that station.

control panel—A panel having a systematic arrangement of terminals used with removable wires to direct the operation of a computer or punched-card equipment.

control point—1. A point that may serve as a reference for all incremental commands. 2. The operating position of an amateur radio station where the control operator's function is performed.

control-power disconnecting device—A disconnective device, such as a knife switch, circuit breaker, or pullout fuse block, used for the purpose of connecting and disconnecting the source of control power to and from the control bus or equipment.

control program—A computer program that places another program and its environment in core memory in proper sequence and retains them there until it has finished operating.

control ratio—1. The ratio of the change in anode voltage to the corresponding change in critical grid voltage of a gas tube, with all other operating conditions maintained constant. 2. Also called programming coefficient. The required range in control resistance of a regulated power supply to produce a 1-volt change in output voltage. Expressed in ohms per volt.

control read-only memory—Abbreviated CROM. A major component in the control block of some microprocessors. It is a ROM that has been microprogrammed to decode control logic.

control rectifier—A silicon rectifier capable of switching or regulating the flow of a relatively large amount of power through the use of a very small electrical signal. These solid-state devices can take the place of mechanical and vacuum tube switches, relays, rheostats, variable transformers, and other devices used for switching or regulating electric power.

control register—Also called instruction register. In a digital computer, the register that stores the current instruction governing the operation of the computer for a cycle.

control section—See control unit.